12. (Twice Amended) A method of producing a HIV-derived retroviral vector particle comprising the steps of:

a) co-transfecting mammalian host cells with:

[a)] i) a first plasmid comprising a codon optimized DNA sequence which encodes HIV *gagpol* proteins but not DNA sequences encoding HIV accessory proteins or constitutive transport elements;

[b)] ii) a second plasmid comprising a DNA sequence which encodes a heterologous envelope protein; and

[c)] iii) a third plasmid comprising a DNA sequence of interest and HIV cis-acting sequences required for packaging, reverse transcription and integration,

b) maintaining the transfected cells under conditions suitable for virus particle production; and

c) recovering virus particle produced in step b) [thereby producing a HIV-derived retroviral particle].

27. (Twice Amended) A method of producing a lentivirus-derived retroviral vector particle comprising the steps of:

a) co-transfecting mammalian host cells with:

[a)] i) a first plasmid comprising a codon optimized DNA sequence which encodes lentivirus *gagpol* proteins but not DNA sequences encoding lentivirus accessory proteins or constitutive transport elements;

[b)] ii) a second plasmid comprising a DNA sequence which encodes a heterologous envelope protein; and

[c)] iii) a third plasmid comprising a DNA sequence of interest and lentivirus cis-acting sequences required for packaging, reverse transcription and integration,

b) maintaining the transfected cells under conditions suitable for virus particle production; and

c) recovering virus particle produced in step b) [thereby producing a lentivirus-derived retroviral vector particle].

31. (Twice Amended) A HIV-derived retroviral vector particle having no viral accessory proteins produced by the method comprising the steps of:

a) co-transfecting mammalian host cells with:

[a)] i) a first plasmid comprising a codon optimized DNA sequence which encodes HIV *gagpol* proteins but not DNA sequences encoding HIV accessory proteins or constitutive transport elements;

[b)] ii) a second plasmid comprising a DNA sequence which encodes a heterologous envelope protein; and

[c)] iii) a third plasmid comprising a DNA sequence of interest and HIV cis-acting sequences required for packaging, reverse transcription and integration; and

b) maintaining the transfected cells under conditions suitable for virus particle production.

32. (Amended) A [method] HIV-derived retroviral vector particle of Claim 31 wherein the heterologous envelope protein is the G glycoprotein of vesticular stomatitis virus (VSV G).

33. (Amended) A [method] HIV-derived retroviral vector particle of Claim 31 wherein the heterologous envelope protein is the amphotropic envelope of the Moloney leukemia virus.

35. (Twice Amended) A lentivirus-derived retroviral vector particle having no viral accessory proteins, produced by the method comprising the steps of:

a) co-transfecting mammalian host cells with:

[a)] i) a first plasmid comprising a codon optimized DNA sequence which encodes lentivirus *gagpol* proteins but not DNA sequences encoding lentivirus accessory proteins or constitutive transport elements;

[b)] ii) a second plasmid comprising a DNA sequence which encodes a heterologous envelope protein; and